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LECTURES.

BOSTON CITY HOSPITAL: CLINICAL LECTURE NO. XI.

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Chronic Disease of the Knee. — GENTLEMEN: This little girl has been brought in to be shown to you, and to have an exploration of the knee-joint. She is now eleven years old. At the age of six years her knee began slowly to enlarge. After prolonged exercise it sometimes gave her trouble, otherwise none at all. Nine months ago she fell, and since that time her knee has gradually grown worse. This is the only history we have.

In comparison, the two knees, as you readily observe, are unlike. The left is apparently normal. The right is very much deformed, and in two directions, namely: it is enlarged in front; it is widened between the condyles. On its anterior surface the veins are dilated as they are not upon the same portion of the sound knee. There is, besides, over the inner condyle a peculiar swelling, which does not exist over the same condyle of the left leg. In the popliteal space I discover nothing abnormal, but now notice a slight appearance of a tendency to dislocation. On palpation I find the swelling soft and fluctuating, and inasmuch as it followed a chronic injury it probably contains pus and is a cold abscess. The knee-joint is bounded by a capsule, which is similar in both knees. When, therefore, we have a synovitis of this joint there is a uniform, spindle-shaped enlargement, extending high up the thigh under the tendon of the quadriceps extensor muscle. Unsymmetrical swelling consequently indicates cold abscess outside the capsule. On the other hand, we have a history of enlargement of the joint, as well as partial immobility from adhesions. In spite, then, of the unsymmetrical form of the abscess, there seems to be a probability that it is in some way connected with the joint. What should be the treatment? The child is in a fairly robust condition, so that the question arises, Shall we not open the abscess to-day? I think it the proper course, but in order to avoid admitting air into the joint shall pump off the contents by means of the aspirator.

In the recent case of cold abscess from caries of the spine we aspirated twice, but the abscess refilled. We then opened it with a knife, and found a large cavity which we allowed to drain under a poultice. What followed? Severe sickness, threatening peritonitis, a low grade of pneumonia, and a generally bad condition, from which the patient escaped with difficulty. The abscess is now accustomed to the air, and the patient will recover, but with a discharging sinus. I have mentioned this case simply to show you the effect of laying open a cold abscess. In the case before us, then, we will open subcutaneously, and afterward wait a fortnight for the results. We shall probably give discharge to a thin fluid with cheesy lumps. By and by will arise the question of excision, from which operation the child might recover with shortening of the limb, but would have a stiff joint. Excision, however, is oftener fatal than amputation above the knee. Consequently, I do not feel justified in doing anything in the direction of operative treatment. For the present we will strap the part and apply extension, and if no improvement follow, the question of amputation or other interference will then arise. In evacuating the abscess we find the skin so thin that the usual primary incision is not necessary. I now introduce the needle, and use aspiration. The pus which flows is very thick, and quite unlike what I expected to see. It does not suggest a connection between the abscess and the bone, as it would if it were thin, oily, and flaky. We have drawn about one ounce, and the swelling goes down. For that reason we hope the abscess has nothing to do with the knee-joint. In that case the trouble may end in a cure by anchylosis of the joint. The two knees are now more alike; what remains of the apparent deformity is hard bone, and you see even more than before the evidence of the outward dislocation. This is probably due to a relaxed condition of the internal lateral ligament, which permits an outward movement of the head of the tibia. The character of the pus and the position of the abscess lead me to consider the latter traumatic in character. I now propose to apply a ham splint and rest, and by and by an iron splint, like Sayre's, which will prevent dislocation, give extension, and allow the patient to walk daily.

[One week later.] The abscess in this case has already refilled, and is now just as it was at first. The thickness of the pus and lack of connection with the joint, it will be remembered, led me to think the abscess outside the joint. Aspiration being of no avail, I shall proceed to lay open the swelling. Having done so, I find a mass of lymph and thick pus, but no opening into the joint. Searching more closely, however, I now discover a small chink leading directly into the joint. Otherwise there is no opening. I shall now wash out with carbolic acid and water, and put the leg on a splint. If inflammation goes on and caries develops we shall probably excise the joint. There is no dislocation,

and but a slight stretching of the ligaments; there is no denuded bone and I hope for improvement.

Chronic Mammary Abscess. — Our next patient, whom you have seen in the wards, has a chronic mammary abscess. She has made no improvement, and has therefore been brought in for treatment. Two months ago she was confined with her first child. Within six weeks she had the so-called "broken breast," and has been three weeks in the hospital. At present the question is, What is the speediest method of arresting the suppuration and healing the abscesses? The trouble is in the right breast, which, you will notice, is not much larger than the other, for it is going through the process of shrinking. It still has milk. In the left breast are the marks of leech bites and the cicatrix of a small abscess, now healed. In the right the abscess has existed for six weeks. Ordinarily the simplest form of abscess arises under the skin near the nipple; another variety forms deep in the breast between the lobes of the gland; and a third, beneath the breast, creates a sac, upon which the former floats. The difficulty here is that although milk is still secreted, pus continues to burrow in various directions. A free incision should at once be made. How do we make this incision? If necessary to incise near the nipple, we cut parallel with the milk ducts, which run into the nipple precisely as the spokes of a wheel enter the hub. If we cut the ducts, or if the abscess break into them, we have a lacteal fistula, and milk and pus mingle in the same discharge. Here only pus flows from the abscess. Incisions have already been made, but the burrowing of the pus still continued. We then tried compression by strapping, leaving openings opposite the sinuses, but, with the exception of the shrinkage of the breast, this treatment effected nothing. Two days ago the director went a long distance into sinuses, which to-day the patient has given us permission to open. Sometimes I should use the seton, because it seems to wake up healthy inflammation in the sinus into which it is introduced. When this change has occurred we withdraw the seton, and the sides of the sinus come together, granulate, and heal. This is a very obstinate case. I take the director, and here find a skin sinus, which does not require a seton but the knife. Here, just under the skin, I find a collection of pus, — here another sinus going down deep into the gland, and here still another skin sinus, — altogether quite a variety of openings and sinuses, namely, three under the skin, one going to the base of the gland, and one which has been opened and has healed. At present I do not think it advisable to use the seton unless I should make some new discovery. Certain of these openings may communicate with others; some of them run deeply and do not seem to come out again. Consequently, I think it wise to slit up the skin sinuses and widen the mouths of the deeper ones, and afterward strap again. When the patient came into the hospital she had a dark,

cutaneous eruption, which suggested a specific origin, and, although we can get no history of syphilis, I propose to give her the following: —

℞ Hydrarg. bichlor. . . . . gr. i.
T. ferri muriatis . . . . . ʒ i.
Aquæ destil. . . . . ʒ iij. M.
One teaspoonful three times a day.

This forms a combination of specific and tonic, and will do her good.

I have now opened a suppurating tract, which is covered by a false mucous membrane, and is secreting pus. The incision, together with exposure to air and application of pressure will probably change its character and cause it to heal.

Here is a milk duct which has been perforated by the abscess, and through this opening milk exudes. So that we have not only a sinus, but a milk fistula as well. Slitting up the skin sinuses of course does not interfere with the future usefulness of the gland. From the deepest sinus of all comes the exuding milk. I propose to enlarge the opening by means of the sinus dilator. In tissues of this kind dilatation is preferable to cutting. I find that this sinus goes beneath the breast to the pectoral muscles. Probing now the other deep sinus, I make the discovery that at the bottom these two sinuses are very near together. I make them one, and pass in a seton, which I finally conclude will here be most useful. This is a very instructive case, because it is like those we meet in private practice, and which last so long that they sometimes lead the patient to fear that cancer is the real source of trouble. We shall poultice this breast for a few days, and let it discharge through the sinus we have left. At the end of a fortnight we shall find that a great change has taken place.

Solid Tumor under the Pectoralis. — It has always struck me as being a very curious thing that cases of similar nature often come to us in groups. This is frequently the experience in private practice. For example, you will recall the case of the other day in which there was a swelling beneath the left breast and in the axilla that proved to be a suppuration. That patient is nearly well. Here, now, is another similar case. The condition of the breast indicates that there never has been any trouble in the gland. Meanwhile, under the pectoral muscles and in the axilla is a condition identical with that found in the case of a fortnight ago, namely, enlargement of veins, high pulse, swelling, etc. What is odd here is that the swelling has come and gone for nine months, while the other case has a history of a few days only. During the last two weeks the patient has had cough and headache, but no marked chills. On the 15th the temperature was 101° A. M., 103° P. M.; 16th, nearly normal; 17th, 101°; and so it has varied, accompanied by fever, which has now disappeared. The history, then, is that of constantly alternating processes. The swelling is more lobulated than that

in the other case, and although it is probably composed of enlarged lymphatics and an abscess, it may be something else. In fact, now that the patient is under ether, and I can freely handle the enlargement, I find it feels more like a solid tumor than it did before I was able to examine it as I now can. I did propose aspiration, but the tumor being a hard mass I of course abandon that form of treatment. What should be done is enucleation of the tumor, but having until now had no time to complete my examination of the growth, I could neither inform the patient of the necessity of an operation, nor secure her permission to perform it. There is nothing to do, then, but reserve the case for another day.

[Three days later, under ether, a free crucial incision was made in the axilla, the pectoralis lifted, and a large lobulated mass of lymphatic glands excised. The operation was done under antiseptic spray.]

Syphilitic Constriction of Pharynx. — This patient is an extremely interesting one. He was brought into the hospital three weeks ago with such an extraordinary syphilitic constriction of the throat as to be barely able to swallow or breathe. At his request I at once performed tracheotomy, which has relieved his respiration. When not under ether, he breathes very comfortably. The case is similar to one shown you last week, except that the other had not gone so far as this has. To-day I propose to dilate the constriction, which is so extreme that the tip of my forefinger will not pass up to the posterior nares, while the opening into the throat will not admit the end of my little finger. The strictures are very firm both above and below, and the pharynx has lost its mobility. I first try a conical urethral bougie, which passes to a certain distance, then bends; substituting another loaded with lead, I find it goes through the stricture and into the œsophagus. I now take larger, rectal bougies, and now my finger, dilating as much as I deem prudent.

[One week later.] The constriction has improved to such a degree that the forefinger now passes easily up into the posterior nares. The opening downward, which would not admit more than the little finger's tip, now receives the end of my forefinger. The wall of the constriction, both above and below, seems to have become lessened by absorption, and the patient eats and drinks with more ease. He was rendered so uncomfortable by the ether administered last week that to-day I shall dilate without anæsthetic. Beginning as before with the conical bougie, I next take the rectal bougie, and finally my forefinger, which I succeed in passing quite beyond the stricture, which appears to be a firm zone about two inches in depth. Systematic dilatation will undoubtedly do much to relieve the patient. He still wears a tracheal tube, the first one having been replaced by a second, which is gold-plated and very comfortable.

OBSERVATIONS ON THE MECHANICAL TREATMENT OF DISEASE OF THE HIP-JOINT.

BY CHARLES FAYETTE TAYLOR, M. D., NEW YORK.

In my intercourse with medical men I am so impressed with the amount of misconception of the means used and the paramount object aimed at by the advocates of mechanical treatment for disease of the hip-joint, that I desire briefly to set forth my own views in regard to some of the ideas and the more important methods which considerable experience has seemed to establish as controlling in such cases.

The subject may be introduced in the form of the following propositions, namely: First. All organs while in a state of disease require rest from the performance of their functions in the direct ratio of the amount, quality, and intensity of the abnormal movements. Second. What is rest for an organ in one condition is not necessarily rest for it in another condition; that is to say, an organ, in a certain degree of *pro*gressive inflammation, presents conditions essentially different from the same organ in the same relative degree of inflammation in the *retro*gressive stage.

The so-called "mechanical" treatment of hip-joint disease, so far as I understand it, is simply the *working out* to practical conclusions of responses to indications to which the above propositions give the key-notes. The difficulty with the non-specialist in these cases is that he is apt to give altogether too much importance to appliances and too little to the varying states of the disease. While he is contemplating different kinds of "splints" the disease is carrying off his patient. If he would seek only for the exact indications, the best means for responding to them would be likely to suggest themselves, and he would be surprised to find how simple and easy it would be to effect his object. The mechanical treatment of hip-joint disease is not a question of splints, — nearly everything can be accomplished by cheap and home-made appliances, once the condition is clear in the mind, — but one of different conceptions of symptoms. The particular means of answering the indications must follow the conception. They do not, or at least they ought not, to precede it.

Now, heeding the logic of hip disease, we attempt first to ascertain and then to answer all the indications. The first is to give rest to the diseased joint. The plaster-of-Paris and other dressings, sand-bags, and similar means give rest only in part, and the lesser part at that. This is our conception of the case. For rest from motion is relief from only the minor labor of a diseased hip-joint in the acuter stage. The pressure from irritated muscles at this time is a much greater evil than motion alone could be. To overcome the injurious pressure from irritated muscles is, then, imperative. Hence, we must stretch them, and we find that practically a splint is more efficient than any

other means, because by a splint we can secure the more definite and concentrated effect of counter-extension, and a splint also enables us to enforce a better hygiene. There seems to be a general quandary in regard to the amount of extension which ought to be employed. There never was a question more easy to answer. We must carry extension until the muscles relax, and then we must maintain the extension until they lose their irritability and the inflammation in the joint has been given time to become retrogressive. This process will require, on an average, from three months to eight or twelve, depending on circumstances. But there are indications for extension so long as the muscles are rigid, and until there is evidence of material subsidence of the inflammatory action. Then, with the setting up of the reparative process, there should be motion in the joint in order that the reparation shall be accomplished under the stimulus of motion. For, when the retrogressive process has advanced to a certain stage, immobility, which in the acuter stage secured one kind of rest to the joint, becomes with the altered condition of that organ a burden or a labor, tending first to retard and then seriously to modify the nature of the reparative process going on in the joint. Long before the articular surfaces can bear pressure without injury they require the stimulus of motion for the perfection of the reparation going on within them. Immobility at this stage stimulates plastic exudation and union between the joint surfaces, while motion determines the formation of reparative tissue similar to and to answer the purposes of that which was injured or destroyed. If immobility of a healthy joint causes plastic exudation and anchylosis, of which there are many examples, then much more ought we to expect, when a previously diseased joint is motionless, that adhesions of the joint surfaces would take place. And this, in my experience, is actually the case. In other words, if immobility of a healthy joint causes a morbid process to be set up, we ought to expect that such a process would be set up in opposition to the reparative process when a corresponding stage is reached in recovering.

Thus we see that "extension" can cover, as a means of treatment, but a certain portion of the time through which an inflammation of the hip-joint must pass in its several stages. There are positive indications for extension, but there are as positive limitations to its use. The limitation is reached at the point of time when the muscles have become soft and compressible, and the interstitial movements have become completely retrogressive. From this moment reflex irritation of the muscles ceases entirely, and with it the necessity for extension. Motion, also, which might do injury — was sure to do injury if there had been the least pressure in the joint — at a previous stage, becomes now a necessity to a perfect articular hygiene. So that the indications become completely changed, and the methods which had been efficient up to

this time must be abandoned in consequence of the very success of their use. After this the joint needs a different kind of protection, till the completeness of the reparation makes protection unnecessary. Thus the splints or instruments are determined for us. After this stage they must be contrived so as to promote joint motion, not to prevent it. The mechanical means must suit the actual conditions present, and must lead logically to the end sought by treatment. They must vary in different stages of the same case, and even more in different cases. It is absurd to speak of "an instrument for hip disease." There can be no one complete instrument for hip disease. There can only be instruments calculated to answer the indications present at some stage of hip disease. The surgeon who treats disease of the hip-joint by a method calculated to fulfill but a single indication, whether by gypsum or other bandages, sand-bags, splints, or what not, fails, in my opinion, in his conceptions of the elements of the case, as he surely will fail of securing the best attainable result. Two or three cases will illustrate the pertinency of the foregoing observations. The first is a typical and comprehensive one.

S. F. McD., four years old, was first brought to me in July, 1876, in consequence of a slight halt in his right leg. Some weeks before he had twisted it by falling out of a rocking-chair; this was followed immediately by severe pain, lasting four days and nights. During this time the limb was flexed. The pain was of a spasmodic character, occurring very frequently. But he soon got over the injury, as was thought, and when, later, a limping was noticed, it was not connected with the accident. There was but the slightest difference in the motions of the two hip-joints when he walked, and no pain at this time, nocturnal or other. Yet it was certain that the joint was affected, and I gave an opinion accordingly. The child had been treated for rheumatism. My advice that he be put under treatment for disease of the hip-joint was not acted on. In October the child was again brought to me, this time complaining of pain, especially at night, and limping, not badly, but decidedly. The case was evidently rapidly approaching the suppurative stage, and I said so to the father. Not being ready to believe that the case was so bad, he still declined to act on my opinion. He returned on the 10th of January, 1877. At that time the joint was suppurating rapidly, there was great constitutional disturbance, the thigh was strongly flexed on the pelvis, motion was excruciatingly painful, and the affected hip was greatly enlarged. Treatment was commenced on the day last mentioned. It consisted in the use of the counter-extension splint, and the patient, as is usual during the first month of treatment, was kept in bed. The recumbent position, during the first few days or even weeks of treatment, relieves nervous depression, gives time for the patient to accommodate himself to the novel sit-

uation, enables us to save the amount of his weight from the perineal straps, and by that amount increase extension and hasten the effects of treatment. The child had a thin, tender skin, and the perineal straps causing some excoriation, a weight and pulley were added. The cord was attached by means of a hook directly to the lower end of the splint. The splint, as shown by the dynamometer, exerted a force equal to an average of eight pounds. To this five pounds were added by means of the weight and pulley, so that it required about thirteen pounds' weight to overcome the muscular resistance. The object was, as it always is in such cases, to carry extension to a point sufficient to cause complete relaxation of the muscles. And here I may say that care should be taken always to keep a surplus of force opposed to the irritable muscles. The suppuration not subsiding, and the abscess approaching within reach, it was opened on the 30th of the same month by a free incision. Lint was inserted to keep the parts from uniting, and thus to give free drainage to the fluid, which discharged copiously one or two months. At this time the patient came under the observation of Dr. E. H. Bradford, of Boston, who kindly assisted me in attending him during a couple of months. In February and March he suffered a good deal, and the full amount of extension had to be kept up. Another abscess developed further on the outer aspect of the thigh, which was evacuated so soon as it was discovered. In fact, several openings formed, the inflammation seeming to be rapid and destructive. About the first of April, or, say, three months after the beginning of treatment, the pain had subsided, the sinuses discharging freely, and no new ones appearing, he was allowed to begin to walk, the joint protected, of course, by the splint which he wore, and which kept up continuous extension in whatever position he might place himself, whether standing or lying. From this time onward there was uninterrupted progress of the joint reparation, marked by several epochs of interest to the student of this disease. Our notes say: "May 9th. Excellent health; tolerable mobility of joint; thigh in good position. Pus discharging from two openings on the outer aspect of the thigh, but apparently more from a slough which had occurred there than from a deep-seated source. Thigh still considerably swollen, and hard in upper portion.

"August 1st. Slight discharge from two openings. No pain nor tenderness. Easy mobility at hip to a moderate extent. Excellent health.

"December 28th. Patient ready for second instrument several weeks ago, but there being considerable adduction and a tendency thereto, the ordinary second or 'jointed supporting splint' was modified so as to take the weight of the body on the *opposite side* of the pelvis. By this arrangement the thigh was abducted with each step, while protecting the joint most perfectly, and at the same time allowing freedom of motion in the hip and all the joints of the affected limb. Abscess still

discharging moderately. Mobility free but to a limited extent, especially laterally. Health perfect.

"March 30, 1878. Abscesses have been closed during the past two months. Good and easy mobility at hip in every direction, including rotation. Child very active and nimble.

"December, 1878. Every motion perfect. Patient has been receiving a portion of his weight on the affected hip during the past two or three months without the least harm. He is discharged cured. He does not limp. There is a slight difference in the lengths of the lower extremities, but not enough to be noticeable in his locomotion. He is directed to return frequently during the next two years, for examination."

The comments on the above case need not be extended. I would simply call attention to the serious nature and rapid progress of the disease prior to the commencement of the treatment; to the suppuration and evident destruction of some portions of the articulating surfaces; to the two months during which his system was recovering from the shock it had received, before retrogressive action was fairly established; to the progress after that; to the relatively small amount of motion during the first portion of the period of recovery, and the probability that anchylosis would have been inevitable with any plan of treatment which did not involve provision for motion at, with protection to, the hip-joint as a part of the articular hygiene necessary to the most complete reparation. I would especially direct attention to the probability that the drying up of the abscesses was very much accelerated by the action of the muscles contiguous to the affected parts, whether soft or bony; and, lastly, it would seem not too much to say that whether the hip-joint can recover with motion intact after ulceration ought no longer to be questioned. That this joint was suppurating there cannot be any doubt.

Without entering more minutely into the details of mechanical treatment, I will give one or two cases bearing on the insufficiency of position, either with or without extension, to secure the best attainable results.

M. K., girl, seven years old, was first seen on the 8th of March, 1876. Her history is as follows: About nineteen months before, the child gave signs of disease in the right hip-joint, and the diagnosis being made she was confined to the bed, and treatment by means of the weight and pulley was instituted. Everything seems to have been done which was possible with the inadequate means employed. There was no pain from the beginning, nor during any part of the time she was under treatment. Her general health seemed to be perfect. Yet, after a certain amount of improvement, as indicated by diminished flexion and some increase of mobility at the joint, there seemed to be no further progress. After fifteen months there was still imper-

fect mobility, some slight shrinking on attempting motion; a little limping when using the affected limb. The increasing softness of the soft tissues and other constitutional evidences indicated that the limit of confinement without general deterioration of nutrition, as a result of imperfect hygiene, had been reached. What was to be done? To remain indefinitely in bed is impossible. Hence the turning out of so many patients to relapse, and the importance of methods which render one independent of time. Notwithstanding the previous extension, the muscular tonicity, being more than normal, indicated the necessity for relaxation. This was done by means of the counter-extension splint during two weeks, *and till the muscles were completely relaxed*, when the jointed supporting splint was substituted and the child set upon her feet. From this time there was uniform amelioration in the condition of the muscles and of the joint till after ten months, during which time she had every consistent liberty of motion and locomotion, including fresh air and exercise, the splint was removed and the patient discharged perfectly restored. It is now two years since that event: the child has been going about like other children; there is perfect motion at the affected joint, and no discoverable difference between the functions of the two limbs. Both trochanters are on the same level.

In regard to the permanency of the cures effected by mechanical means, the following case may be interesting: —

R. A. C., a lad five years old, began to lose his appetite and to show signs of decline in the fall of 1866, accompanied with limping on the right limb, nocturnal pains, wakefulness, etc. In May following, he became unable to walk, at which time he came into my hands. The treatment continued during about ten months, when he was discharged cured. Within a few weeks I have had the privilege of examining this case, now a healthy young man of seventeen, in active business, requiring him to be constantly on his feet, and I had to ask him which had been the affected limb. Examining him carefully, — I may say mathematically, for patients are always examined on a paper marked with lines and cross-lines, so that nothing is guessed at, — I found the trochanter of the previously affected side to be five eighths of an inch higher than the other, but the motions of the joint were perfect, and he has never had any evidence of disease or one moment of lameness in that joint since his discharge.

The recumbent position may be assumed for a limited period with decided advantage, especially in the beginning of the treatment. The weight and pulley, as a means of extension, answer very well in an exigency, or as a means of increasing the amount of extension, or of diminishing the pressure of the perineal straps in certain cases which seem to be especially intolerant of it. But the weight and pulley, as a method of treatment, are incapable of producing that positive local effect

on the muscles about the hip-joint which is especially characteristic of counter-extension. A given weight attached to the limb simply drags the whole person downwards, exerting, to be sure, a certain amount of force against the hip-joint muscles, but not affecting them in the same positive and purely local manner that counter-extension does. But recumbency, while serviceable in exigencies and as a contingent aid, interferes too much with the general hygiene of the patient to be depended on as a complete means of treatment. Whatever the immediate benefit which may be experienced in the earlier months of the confinement, the deprivation of fresh air, exercise, and the impairment of the digestive and assimilative functions, begin to interfere with the patient's progress towards recovery long before there has been time for reparation even under more favorable conditions; so that, being aware of and admitting the evils of prolonged confinement, surgeons are continually letting their patients up too soon. With the mitigation or cessation of painfulness they are set upon their feet again. Hence, relapses are frequent, and perfect recoveries — recoveries with motion and without lameness — are very rare indeed.

Perhaps the following statistics may be of interest and not without value in this connection: —

Leaving out of consideration all cases whose histories, subsequently to their treatment, are unknown or in doubt, I find that there remain ninety-four private cases of hip-joint disease which were under personal observation and continuous treatment from the time they applied until they died or were cured, and whose present condition is now, or was very recently, a matter of personal knowledge, for no case whose ultimate fate is not positively known deserves a moment's consideration in any estimate of the probable value of treatment for the hip-joint. Of the ninety-four cases three died, — two of the disease, and one was run over and killed. Among them there were twenty-four with suppurating joints and discharging abscesses, — nearly all in that condition when first applying. Of these twenty-four with abscesses, two died, — the same as stated above, — and in five the discharge has not yet ceased. Deducting these seven, there remain seventeen fully recovered, or seventy per cent. of the suppurating cases. Three of the seventeen recovered cases have anchylosis, and fourteen recovered with practicable joints, — the majority with ample, and some with perfect motion. The ratio of motion to anchylosis, in the cases recovering after suppuration, more or less extensive, is as eighty-two to eighteen. In two of the cases still discharging anchylosis is progressing favorably, and in three there is excellent motion, and, except for the slight discharge remaining, they would be among our best cases. The joint motions are nearly perfect, and the joints themselves are apparently well, the present discharge being supported, undoubtedly, as it so often is, by eccentric

periosteal excoriations. In such cases nothing so tends towards recovery as the action of the muscles contiguous to such eccentric implantations.

The above enumeration includes all cases of the class previously specified for the nine years preceding November, 1877, but excludes the cases received since that date.

RECENT PROGRESS IN THE TREATMENT OF THORACIC DISEASES.

BY F. I. KNIGHT, M. D.

Bloody Fluid in the Right Pleura; Paracentesis; Recovery. — Dr. Broadbent read notes of a case of unusually rapid effusion of bloody fluid into the right pleura, in a gentleman aged seventy-six,[1] who recovered after paracentesis. The patient consulted Dr. Broadbent on the 16th of May, suffering from dyspnœa on exertion, which had been gradually increasing for ten days. There was evidence of right pleural effusion; dullness to nipple-level in front and mid-scapular region behind. The next day the dyspnœa had increased, and now there was dullness all over the right chest, except a small area below the clavicle. Respiratory murmur was absent, and there was tubular breathing between the scapula and the spine. On the 18th, the right pleura was obviously full of fluid, and it seemed that paracentesis was absolutely necessary. Accordingly, on the next day, two quarts of highly blood-tinged fluid were withdrawn by means of the bottle aspirator, a small canula being used, and only gentle suction employed. A considerable quantity was left behind, but it was thought prudent to stop. The heart, which had been displaced to the left, regained its normal position. The fluid was highly charged with blood, and the probability of the effusion depending on malignant disease was entertained. The next day the temperature was 102° F.; the fluid did not again increase, but gradually became absorbed. The patient left town at the end of June. Dr. Broadbent remarked on the advanced age at which the effusion had occurred. He had always considered advanced age as a reason for early tapping, owing to the slowness of absorption and loss of elasticity of the costal and pulmonary structures, as well as the need to preserve the patient's strength. Another point was the rapidity of the effusion, which was unparalleled in his experience. This, added to the amount of blood it contained, all seemed in favor of malignant disease. There was still some impaired mobility of the right side of the thorax, and evidence of bronchial dilatation. The amount of blood present was explained in part by the rapidity of the effusion. Mr. Maunder, in the

[1] Report of a meeting of the Clinical Society of London, Lancet, March 30, 1878.

discussion which followed the reading of the case, said that the only explanation offered of the origin of the blood was the possible presence of malignant disease. Probably this was not the cause, the patient being in good health, and twelve months having elapsed since the operation. He suggested that it might be accounted for as the result of congestion and oozing, from want of tone in an elderly person, and analogous to the accumulations of blood sometimes met with in the bladders of old men, and from which they often recover.

Pleuritic Effusion; Sudden Death without Paracentesis. — Dr. Broadbent also read the notes of this case at the meeting mentioned above. The patient was a young man, twenty-four years of age, with a phthisical family history, who was attacked with pleurisy in the right side at the end of August. For two weeks he suffered from shortness of breath. On September 28th he was seen by Dr. Broadbent; there was evidence of much effusion, and the heart was displaced. There was no paroxysm of dyspnœa, but it was decided to perform paracentesis the next day. The patient passed a good night, but was attacked by dyspnœa at six A. M., and shortly afterwards died. It must be noticed that there was not a single paroxysm of dyspnœa before the final attack. No post mortem was obtained, but the cause of death was probably thrombosis in the veins of the right lung extending to the heart. Dr. Whipham mentioned a similar case which occurred in St. George's Hospital two years ago. The patient was under the care of Dr. Barnes for ulceration of the os uteri, and had been in the hospital for a month. Ten days before her death she had a slight shivering, but nothing pointed to the pleuritic effusion until two hours before her death, when she was attacked with dyspnœa. Dr. Whipham was able to ascertain the presence of effusion into the left pleura, which was confirmed after death. No thrombi were found. [The amount of effusion is not stated.] Other cases of sudden death in patients with pleural effusion were alluded to by different gentlemen, but no particulars were given. [It is to be noted that sudden death in Dr. Broadbent's case occurred with an effusion in the *right* pleura. If we are not mistaken the effusion has been in the left in a large majority of such cases reported. Trousseau explained them as due to the dislocation of the heart, and the consequent torsion of the vessels, especially the aorta, inasmuch as it might easily happen that the circulation should be entirely cut off by a sudden movement of the body, violent cough, etc. Bartels[1] considers this explanation very improbable; he does not believe that the aorta could be so twisted by displacement of the heart that it would not be kept pervious by the force of the blood. Bartels thinks that fainting and occasional sudden death can be better explained by a compression and interruption of the circulation in the large venous

[1] Deutsches Archiv für klin. Med., iv. p. 265.

trunk; especially might the vena cava ascendens, as it passes through the diaphragm, when it is firmly adherent to the edges of the foramen quadrilaterum, suffer an almost right-angled twisting.]

Dyspnœa not an Habitual Symptom of Pleurisy with Effusion. — Dr. Dieulafoy[1] says it is generally believed that dyspnœa is one of the most common symptoms observed in pleurisy with effusion; and certainly, at first sight, it seems quite natural, when two litres of liquid exist in the chest, when the lung is flattened and thrust back by the effusion, and when hæmatosis is only imperfect, that the breathing should be oppressed. Yet such oppression does not exist, or only to an insignificant extent. Effusion, when it amounts to a very large quantity, impedes respiration but slightly, so that *dyspnœa is not to be regarded as an habitual symptom of pleurisy with effusion.* This is a point of great practical interest in relation to the indications for thoracentesis.

At the commencement of a pleurisy, when the pain in the side is so acute, the patient may have short, interrupted, and jerking respiration, and he is said to have dyspnœa. His breathing is indeed difficult, but it is difficult and impeded only because it is painful, effusion having nothing to do with it, as it does not yet exist. The breathing becomes easier in proportion as the pain disappears, although the effusion is making incessant progress, and it is often when the effusion has reached its apogee, attaining two or three litres, that the patient believes himself cured, because he is then free of fever and of pain. During the acute stage of pleurisy, also, febrile action accelerates the respiration; for whatever may be the cause of fever, it renders combustion active, and consequently accelerates the respiratory rhythm. But fever is in general very moderate in pleurisy, and exerts but a slight effect on the respiration. Nevertheless, both pain and fever are two of the elements of pleurisy which, by a different mechanism, may engender disturbance of the respiration; but when these two elements have disappeared, or have not existed (as in certain subacute pleurisies termed latent), the patient has no dyspnœa, notwithstanding the large accumulation in his pleura. He certainly is not able to make the same exertions as a man in good health, but when he is in bed, and in the repose which any patient must be in to undergo a medical examination, the dyspnœa is so insignificant that it ought not to be regarded as an element of diagnosis, and should not be accepted as an indication in regard to paracentesis.

This association between a large effusion and an almost normal respiration, which at first seems so strange, is not difficult of explanation. In the physiological condition respiration is not exerted alike over the whole pulmonary surface, certain parts of the lung, especially the supe-

[1] Gazette hebdom., September 27th; Medical Times and Gazette, October 12, 1878.

rior lobes, contributing but very little to the function. But in a pathological condition, when the play of the lung is impeded by the presence of an effusion, the healthy lung comes into action through its whole extent, and nearly reëstablishes the equilibrium in the phenomenon of hæmatosis.

The first consequence which results from this absence of dyspnœa in pleuritic effusion is that dyspnœa furnishes only insufficient or unsafe indications when an operation has to be decided upon. To delay evacuating the pleura until the patient is attacked by dyspnœa is to wait until the effusion has attained proportions so considerable that the life of the patient has already been long in danger by the time the decision is arrived at. All the cases in which sudden or rapid death has occurred during the course of a pleurisy with effusion are neither known nor published, but those which have been published show us that the patients generally die on account of cardiac coagula, coagula of the pulmonary arteries, and thrombosis favored by the entirely mechanical conditions of displacement, torsion, and flattening of vessels, and of the obstructed circulation due to the effusion. Another consequence arising from this absence of dyspnœa is that when it is present in pleurisy it is a sign of complication; so that whenever a patient, the subject of pleurisy with effusion, presents more than from twenty-eight to thirty respirations per minute, we know that we have something besides a pleurisy to deal with. If careful examination be made, it will be found that the pleurisy is secondary, developed in the course of Bright's disease, or of a cardiac affection with congestion of the lung; or the pleurisy is associated with other diseases, as double pleurisy, bronchitis, pneumonia, pericarditis, fluxion of the chest, or pulmonary congestion.

To sum up: (1.) Dyspnœa is not one of the habitual symptoms of pleurisy with effusion. Pleural effusions, even when they reach eighteen hundred grammes or two litres, only accelerate the respiratory rhythm by four or five respirations per minute. I am not speaking, be it well understood, of the painful period which is often accompanied by false dyspnœa, and I make reserves in the cases in which fever is still vivid. But under all other circumstances, in the apyretic phase of pleurisy, and in subacute, latent, and chronic pleurisy, dyspnœa is a symptom so anodin that it does not merit being taken into consideration in reference to diagnosis, prognosis, or treatment. (2.) On the other hand, when a true dyspnœa is proved to exist during the course of a pleurisy, we must always be on our guard against a complication, whether the pleurisy be secondary (as in Bright's disease or affection of the heart), or whether it be associated with other phlegmasiæ or pulmonary congestion.

Auscultation of the Arteries. — Matterstock,[1] who was excited to the

[1] Deutsches Archiv für klinische Medicin, November 29, 1878.

study by the work of Weil, gives the following as a summary of his observations: —

(1.) In mitral disease there exists in the majority of cases a diastolic murmur, that is, with arterial *expansion*, in the carotid and subclavian arteries, usually of a soft, blowing character. This may be due to an irregular movement of the blood in consequence of diminished filling of the artery, or may be produced in the neighboring distended vein by the intermittent pressure of arterial expansion.

(2.) The systolic murmur heard in the pulmonary area in various diseases (pulmonary stenosis, mitral affections, pulmonary emphysema and cirrhosis, anæmia, etc.) is often propagated with striking intensity into the left subclavian, and even into the axillary artery. The same is true of the pulmonic second tone.

In like manner, the auscultatory phenomena of the aortic orifice stand in intimate relation to the arteries of the right side.

(3.) A murmur may be produced simply by pressure [of the stethoscope] in all accessible arteries under the most different conditions; this has no semeiotic significance.

(4.) A *tone* also may be produced artificially by pressure [of the stethoscope] in all the large compressible arteries into which a small quantity of blood is thrown by quick ventricular contraction.

(5.) This pressure tone is due to the vibrations both of the arterial wall and the fluid.

(6.) The double murmur is also artificial [that is, produced by pressure]. Its occurrence is associated with no particular valvular affection. All that is necessary for its production is a moderately large quantity of blood thrown into the arterial system, not too slowly, and that the arterial wall shall have retained its contractility, or at least shall not have lost very much of it. The most necessary condition for its production is suitable pressure.

(7.) In most cases the second half of the double murmur is due to centripetal movement of the blood. In rarer cases it may correspond to anadicrotism of the pulse; then it is probably due to a double contraction of the heart, and is nothing more than a reduplicated tone transformed into a murmur by pressure.

(8.) The reduplicated diastolic arterial tone is for the most part produced by a double contraction of the ventricle. It has no pathognomonic significance.

(9.) The double tone may be found in all possible conditions, and is, at least in most cases, to be considered merely as a consequence of the katadicrotism of the pulse.

(10.) Cases of considerable aortic stenosis are distinguished above all other valvular affections by a want of the double murmur and pressure tone.

(11.) The arteries of those poisoned by lead, even in very early stages of the disease, may show all auscultatory phenomena of the arteries of patients with aortic regurgitation.

(12.) The arteries give no pathognomonic sign of aortic insufficiency.

(*To be concluded.*)

RECORDS OF THE BOSTON SOCIETY OF MEDICAL SCIENCES FROM MARCH TO MAY, 1878.

JAMES J. PUTNAM, M. D., SECRETARY.

TUESDAY, MARCH 24, 1878. — DR. WEBBER read an account of a case of *section of the ulnar nerve* just below the point where the branch supplying the abductor minimi digiti is given off. As a result of this injury it happened that when an attempt was made to extend the fingers they all, except the little finger, assumed the position characteristic of the "bird's-claw" hand, and further, the first and second fingers remained parallel with each other, as usual. The little finger on the other hand was drawn, by the unbalanced action of the abductor, into a position nearly at right angles with the hand, while the ring finger stood half-way between the second and little fingers. The loss of electrical reaction affected the parts supplied by the injured portion of the nerve, but so far as could be told with so young a subject (a boy seven years of age) no part of the skin had lost its sensibility.

DR. AMORY asked as to the length of time required for recovery of a nerve from section, and said that after accidental division of one of his own digital nerves three years had elapsed before sensibility had become entirely restored.

In answer to Drs. Dwight and Bowditch, DR. WEBBER said that undoubtedly the assumption of the functions of injured nerves by others, which either anastomose with them or supply the same area of skin, was in part the cause of the persistence or quick return of sensibility to paralyzed parts of the skin, but besides these causes the education of the cerebral centres to appreciate slight impressions conveyed mechanically to neighboring nerves must be taken into account.

DR. BLAKE showed an object which had been found in the eye socket of a Peruvian mummy by an officer of the United States Coast Survey, and given to him. It was of yellowish color, flat on one side and sharply rounded on the other, and was believed, in accordance with the opinion of Professor Agassiz, given in regard to other similar specimens, to be a portion of the eye of the cuttle-fish. It was not a unique but yet a very rare specimen. It had undoubtedly been introduced at the time of embalmment, but Dr. Blake had been unable to learn whether it is only in skulls of a certain type, of which two distinct kinds exist, that these bodies are found. The rounded side is always turned outwards. It is not possible that they are introduced before death, because the specimen at the Peabody Museum is so large that it must have been forced in with some difficulty.

DR. WADSWORTH showed a microscopic section of an *epithelioma of the limbus corneæ*, which had encroached slightly on the cornea, forming a rounded

tumor, perhaps a quarter of an inch in circumference. The surface, during life, had been smooth and unbroken; its central portion rather pale, the rest congested. The case was interesting as indicating the possibility of curing the disease by operation, more than nine months having now elapsed since the removal, without recurrence; also because it was possible, under the microscope, to trace the diseased into the healthy tissue in both directions. He showed also a section of another small *epithelioma of the eyelid* (not involving its edge), with the history that more than a year before the operation for removal a minute tumor had been noticed which had seemed to be an enlarged sebaceous gland, with inspissated contents, forming a mass perhaps a line in diameter, and consisting (under the microscope) of granules and fatty matter. For two or three months there had been no further trouble; then attention began to be frequently called to the part by a feeling of slight pain or itching there, and in the course of a year this little tumor had developed so as to be three eighths of an inch in diameter and rather dense to the feel, and the surface uneven and nodulated. The microscope had revealed the usual appearances of epithelioma. Two and one half years had elapsed since the operation, without any sign of return.

Dr. Dwight wished to put on record a case of *partial transposition of the viscera*, every part being in its normal place except the intestines. The ascending colon was on the left side and the sigmoid flexure on the right. Partial transpositions of this kind are very rare, while complete ones are not excessively so.

Tuesday, April 16, 1878. Dr. Garland described some *peculiar movements* which he had recently observed in the *pus cells of a specimen of urine* which had been sent him for examination. The urine was of a pale straw color, showed an acid reaction, and had a specific gravity of 1011; it contained a large amount of albumen, and an abundant sediment which consisted of pus and blood cells, and epithelium from the vagina, lower urinary tract, and renal pelvis. There were no casts, but a large number of bacteria were moving about the field. The pus cells were making sluggish amœboid movements, and displaying numerous amœboid changes of contour. Some of the cells seemed enlarged by a protrusion on one side. This protruded portion was ordinarily clear and hyaline in appearance, but sometimes contained a few isolated granules, while the remainder of granular contents was grouped about the nuclei in the other parts of the cell. Strong illumination (by gas) of the hyaline portion made it evident that the granules which it contained were in active vibration. In spite of being violently agitated, however, the granules did not migrate from their positions. The addition of acetic acid and the beginning of alkaline fermentation stopped the movements. No similar movements could be detected in the granular masses which remained grouped about the nuclei in the other parts of the cell, and it was confined to two or three of the individual granules in the clear part. By the aid of careful focusing Dr. Garland was able to convince himself that the moving particles were inside the cell, and that they were not bacteria, from which they differ in being much smaller and in showing much more active movements than the latter bodies.

Dr. Dwight suggested that the movements described were probably the same as the Brunonian movements of protoplasm.

Dr. Garland thought this explanation a very probable one, but said it was unusual to observe such movements in the pus of urine, and suggested that they might have a clinical significance. Dr. Garland said further that in order to see the movements described it had been necessary to have a strong illumination and an acid urine.

Tuesday, May 21, 1878. Dr. Wadsworth showed some photographs of sections of the retina in the foveal region.

Dr. Bowditch showed a *modification of Du Bois Raymond's unpolarisable electrode*, of his own invention and construction. It was made of a plate of hard rubber about three inches long, one inch wide, and one quarter of an inch thick. Along the upper surface of this plate, near the median line, a number of small holes or pits had been bored, about one quarter of an inch apart, from one end of the rubber strip to the other. Each one of these pits communicated by a little tunnel, one eighth of an inch or so in length, with a narrow trough which occupied the rest of the width of the strip of hard rubber from the pits outward, separated, however, from the pits themselves, on the surface, by the narrow bridge of rubber which closed in the tunnel from above. The pits were designed to hold the solution of zinc sulphate, the troughs to be filled with moistened clay. Across any desired number (six or eight, for example) of the troughs a frog's nerve could be laid, and could be excited electrically at any desired point by means of lead electrodes terminating in bits of zinc wire which could be dropped at will into any of the little pits containing the zinc solution. The apparatus had been in actual use, and had worked successfully.

Dr. Blake read a paper, illustrated by diagrams and tracings of sound waves, on *the phenomena of audition and the telephone*, drawing comparison between the sound-conducting portions of the organ of hearing and the telephone.

The object of the experiments undertaken and described in this paper was to determine the loss of power appreciable in the telephonic transmission of the human voice by measurements of the excursions of the discs respectively of the transmitting and receiving telephones. This was done in two ways: first, by making tracings upon smoked glass with a fine plantinum point attached to the centre of the disc, the tracing being there measured under a microscope with micrometer eye-piece; and, second, by inserting the telephone disc in a circuit, with a micrometer screw, between a single-cell bichromate-of-potash battery and a delicate galvanometer. The measurements made in these two ways coincided very nearly in their results, and showed a difference of movement in the receiving as compared with the transmitting disc, which may be stated as indicating a loss of power in transmission equal to 92.8 per cent.

In addition to these measurements a comparison of the vibrations in the air-chambers of the two telephones had been made by tapping the chambers and connecting them with two Koenig's manometric flames, whereby it was shown that the flame corresponding to the transmitting telephone exhibited the tongues characteristic of the vowel sounds sung into the telephone, while

the flame corresponding to the receiving telephone gave merely a slightly wavy line in the mirror.

The induced currents corresponding to the consonant sounds had also been tested by means of a short-coil Thompson reflecting galvanometer, and the deviations of the galvanometer had been found to correspond approximately to the logographic value of the consonants. The paper for which these experiments were undertaken had been read by request before the British Society of Telegraphic Engineers in London, at a regular meeting, May 8, 1878.

HALL'S DIFFERENTIAL DIAGNOSIS.[1]

Dr. Hall's Synopsis of the Diseases of the Larynx, Lungs, and Heart has been elaborated by the American editor into a work on the differential diagnosis of all the more important general and local diseases. He judiciously states that "preference has been given to American over European authorities, as every year adds confirmation to the opinion, now widely received, that diseased conditions assume very different aspects under different climatic and sociological surroundings." The physical signs and the symptoms of the various affections are arranged in tabular form for convenient reference, and the facility thus afforded for comparison and discrimination enables this manual to supply a want often experienced in more elaborate treatises.

CLAPP'S AUSCULTATION AND PERCUSSION.[2]

This is a very carefully prepared tabular view of the physical signs obtained by auscultation and percussion, especially as interpreted by those clinical teachers of whom Dr. Flint is a notable example. Whatever criticism can be made upon the views expressed in this little manual pertains also to this class of writers as a whole. For instance, Dr. Clapp adopts the low-pitched blowing respiration described by Walshe, Flint, and others as pathognomonic of a cavity, to which the majority of auscultators would not assent. Prolonged expiration is made diagnostic of pulmonary emphysema, whereas most physicians would attribute its presence to a coexisting diminution of calibre in the bronchial tubes. The crepitant râle is said to be "almost pathognomonic of pneumonia," no allusion being made to its occurrence in pulmonary œdema and after pulmonary hæmorrhage. The old idea of Laennec in regard to ægophony is retained.

In brief, it may be said that the views of the modern German school are seldom adopted.

[1] *Differential Diagnosis: A Manual of the Comparative Semeiology of the more Important Diseases.* By F. de Havilland Hall, M. D., Assistant Physician to the Westminster Hospital, London. American Edition, with extensive additions. Philadelphia: D. S. Brinton. 1879.

[2] *A Tabular Handbook of Auscultation and Percussion for Students and Physicians.* By Herbert C. Clapp, A. M., M. D., Instructor in Auscultation and Percussion in the Boston University, etc. Boston: Houghton, Osgood & Co. 1879. Pp. 97, 8vo.

We will only repeat, what was said in the beginning of our notice, that this little manual shows evidence of a great amount of care and labor in its compilation, there being hardly an error in it when viewed from the stand-point mentioned above. An index would improve a second edition.

HEALTH, LUNACY, AND CHARITY.

A BILL in conformity with the suggestions of Governor Talbot has been printed for the use of the committee of the legislature on public charitable institutions, to whom was referred the important questions of satisfying a supposed popular clamor for retrenchment, of reorganizing successfully the Board of State Charities, and of devising legislation to place the committal to asylums and care of the insane under state supervision.

The bill abolishes the State Board of Health, the Board of State Charities, and the trustees, inspectors, and advisory boards of the reformatory institutions and almshouse. It provides for the appointment of nine persons by the governor (who wishes to have them independent of party, sex, and sect), to constitute an unpaid State Board of Health, Lunacy, and Charity; to possess the powers of the two abolished boards; to examine insane people, and discharge them from asylums, if they see fit; and, in case of dangerous epidemics, to have coördinate powers with local boards of health. They may appoint and fix the salaries of their executive officers, no one of whom is to be a member of the board. The reformatory institutions are to be placed under a board of inspectors, who, as well as the trustees of the insane asylums, may be directed by the general board whenever the governor sees fit.

Although we do not share the distrust of our asylums for the insane and their management, it seems to us clear that a judicious supervision of the inmates of them by the State would be of advantage to the medical superintendents, to society, and to the insane; but this could be done by the board of charities or health, or by the two together, as well as by a new board, and at no greater expense. The reorganization of the department of charities we cannot now take time to discuss. It is recommended by their own officers, and something should be done, but we hope not in a short-sighted nor in a too Butler-fearing way. The interests at stake are too great to allow the saving of a few thousand dollars to cripple one of the most important departments at the State House. For the board of health the new plan, although intended to do so, does not promise any additional prospect of usefulness, unless it be that it is desirable to have them inspect our public institutions, and that could be done in a better way. They have nothing to gain by being consolidated, and a chance of losing everything if they must give up their present harmonious organization, enter the arena of politics, and run the risk of going to the ground, as the board of charities has done, thereby bringing sanitary science into disrepute. Looking at the matter from the stand-point of the medical profession, we think it would be much better than that to abolish the board outright, for another would soon be demanded by the State.

After so many years' experience in "boards," it is surprising that so much

is expected from a new board of nine unpaid men. So large a body would be sure to shirk responsibility, would be ignorant of their duties from want of time to attend to such a multiplicity of cares, and would be unmanageable, unless there were *at least* one paid member to give his whole time to the work. If the board of nine subdivide themselves into three bodies, as is suggested, they have at once all the supposed disadvantages, without the advantages, attendant upon three boards. The difficulty in giving the central board coördinate powers with local boards of health may be inferred by imagining what confusion there would have been if the State Board of Health had attempted to manage the last small-pox epidemic, in Boston. The relations of such a board with the trustees and inspectors of state institutions, at times, could hardly help being at least embarrassing.

In England, the experiment has been tried and has failed, owing, as some think, to "difficulties of departmental working, rather than from any error in principle," and, as others says, with some emphasis, due to an error in principle. If the well-paid board has been a signal failure in England, is not a failure more likely where the members of the board serve for nothing? It certainly is doubtful whether the *esprit de corps* of the proposed consolidated board would be the stimulus to work that it has been to the board of health.

If a thoroughly good board could be appointed, with enough paid members to secure efficiency, we are not prepared to say that the general good might not be enough promoted thereby to compensate any detriment to the board of health. At best, it would be an experiment, and in its present form not a promising one. We shall look with interest for the report of the committee to the legislature, and their recommendations. Perhaps they will show what we have not yet been able to see, how the consolidation is to save expense.

MEDICAL NOTES.

— We have received the Proceedings of the Medical Society of the State of Tennessee at its forty-fifth annual session, held in Memphis in April last. We are glad to see that the society received the benefit of a short but sensible article on Preventive Medicine by Dr. J. A. Draughon, of Nashville. The advice will be read by the readers with far more attention than that with which it probably was received by his hearers. There are a number of interesting papers, and an eloquent obituary of Dr. Paul F. Eve.

— The *Medical Times and Gazette* quotes from the *Journal des Sages-Femmes* a case of labor, attended by Professor Depaul and M. Noel Guéneau de Mussy, in which the intra-uterine cries of the fœtus were distinctly heard during repeated attempts at delivery by the forceps, the head remaining at the superior aperture of the pelvis for a considerable time. Velpeau always denied the reality of these cries, and so had Professor Depaul, until this case compelled him to state that in future he must admit their possibility.

— The Russian government has offered special privileges to such medical students as will volunteer their services to medical men who are located in districts in which the plague prevails.

— The lists of the matriculation examination of the University of London

are just out, and being the first since women were admitted to all the degrees of the university they have been examined with great interest. The limited number of women who entered took very high places. Out of eleven applicants nine were passed.

— Of course the legislature have found the charges against the Danvers Hospital to be without foundation; and we agree with the committee who investigated the matter that the whole affair was discreditable to those persons who set it on foot. The superintendent and trustees of the hospital are taking the lead in the intelligent management of their trust, and we are glad to give them the credit which they deserve of having one of the very best asylums in the country.

— The following is an extract from a letter written by a gentleman in Texas, himself a sufferer from the centipede bite: "In regard to the bite of centipedes, tarantulas, etc., I have asked several persons who may be considered 'authority,' and I have come to the following conclusion: the bite of the centipede or tarantula in certain sections of the country is always fatal. In other sections the bite is sometimes fatal, generally not, but causes acute pain at time of bite, and in case of the tarantula a swelling something like a boil; in case of the centipede the flesh is killed, and sloughs off in time. Both the bite of the tarantula and that of the centipede seem to affect the nervous system. In certain places in Mexico, in Durango, for instance, the local authorities give rewards for the capture of these insects (a few cents each), and there are persons who make it their business to hunt them. I did not hear any satisfactory reason given why the bites have different results in different sections. It is generally attributed to difference in water and wood. Some few years ago a gentleman and his servant were traveling between Corpus Christi and the Rio Grande; stopping for lunch, the servant started a fire under a bush, and while blowing it a centipede dropped and fastened on the back of his neck. The man lived but three days, and died in great agony. I saw a man who has lived on the frontier for twenty-five years. He had been bitten by a tarantula, and had used camphor and nothing else. He always carries a bottle with him to protect himself against these bites. I have heard of domestic animals being bitten, some of whom died."

— In the physician's report of the Providence Reform School only one death is mentioned, namely, that of a colored boy who during his stay of two or three years in the school had been treated for rheumatism, scrofula, pleurisy, pneumonia, dyspepsia, dysentery, scarlatina, neuralgia, jaundice, disease of the heart, and Bright's disease of the kidneys.

— A subterranean forest of oaks has been discovered in Germany, in a valley watered by the river Fulda. Dr. Maesta, a government geologist, who made the discovery during an official exploration, pronounces the trees to be of enormous size, and to date back in their origin to a remote period.

— M. Vergeley, of Bordeaux, concludes: (1.) That the existence of heart disease does not contraindicate the use of anæsthetics. (2.) That chloroform is a sedative in this class of diseases. (3.) That it should be used with discretion. M. Vergely has given it in palpitation from mitral insufficiency, in angina pectoris and other affections characterized by dyspnœa and palpitation, and thinks this agent has been used too timidly and unsystematically. We

sincerely hope his influence will not increase the use of this dangerous anæsthetic.

NEW YORK.

— A family in Brooklyn have lately been suffering from supposed trichinosis, and one of their number, an old lady, died. Before her death she was seen by five physicians, all of whom concurred in this diagnosis, the disease being attributed to raw ham, which all the family had partaken of. At the autopsy, however, although portions of muscles from various parts of the body were microscopically examined, no evidences of trichinæ were discovered, while advanced disease of the kidney was found. Still it is possible that when more complete examinations of the muscular tissue have been made, the diagnosis of trichinosis may be confirmed. The other members of the family are reported as improving. Since this case came to light the board of health have been collecting samples of pork from various dealers for the purpose of having them examined.

— At the last meeting of the County Medical Society, the special committee on the metric system presented its first report on the advisability of a prompt adoption of the system, and (without seeking them abroad) quoted as encouragements and harbingers of success the following: the recent action concerning it of the Rhode Island and New Hampshire state medical societies, and of the American Ophthalmological Association; the application of the metric system in all the branches of the United States marine hospital service; the pledge of the Boston physicians and pharmacists to use and to promote the use of it; the fact that eminent professors, such as John C. Dalton, C. F. Chandler, and others, use it in their lectures, and also that many of the leading pharmacists of this and other cities are strongly in favor of its adoption.

— Mr. Kiddle, superintendent of public schools, has recently made his annual report to the board of education. From this it appears that the average attendance at the schools during 1878 reached the enormous number of 130,276, which is an increase of 3568 over that of the preceding year. The superintendent complains of overcrowding in the various school-buildings, but says that their sanitary arrangements are good, a statement which may possibly be open to some question. There can be no doubt, however, that owing to the exertions of a special committee of the Medico-Legal Society, and especially to the indefatigable efforts of its chairman, Dr. O'Sullivan, considerable reforms in their sanitary condition have from time to time been effected. In 1871 the average number of pupils in attendance at the schools was only 84,000, and the increase since then is due, to a considerable extent, to the enactment and enforcement of the "truant law" four or five years ago. In 1878 the whole number enrolled amounted to 263,371.

PHILADELPHIA.

— During the past few months, cases of influenza have been so numerous in this city as to constitute a veritable epidemic of catarrhal fever. Dr. Da Costa called attention to this in a clinical lecture recently, at the Pennsylvania Hospital, in which, after alluding to its prevalence, he spoke of some of its

peculiar features, which may be stated briefly as follows: The ordinary appearances of coryza are generally present in the patients attacked by the influenza; the throat may also be affected, but whether this be the case or not, it is generally found that the submaxillary and cervical lymphatics are swollen and tender. The pharynx appears congested, and the tonsils and swollen. There is some bronchitis in the greater number of cases, but rarely to any marked extent; there is, however, a strong tendency to pulmonary congestion and pneumonia, which may involve both lungs. In other patients the force of the poison seems to be expended on the gastro-intestinal tract, and vomiting, cramps, and diarrhœa may ensue. Jaundice has been noticed. There is not much fever, except when there is a complication. The nervous symptoms are very interesting. In some cases the headache and delirium simulate meningitis; in others there is exalted reflex activity of the spinal chord, and spasms of the limbs occur. Painful, burning spots appear on the surface, and there is aching pain in the loins and back of the legs, with stiffening of certain groups of muscles. Facial neuralgia of both trigemini is not uncommon. Depression is quite a prominent feature in these cases from the beginning, and weak and elderly subjects are apt to die, especially if lung complications supervene. Many are attacked by the epidemic who have not been out of their rooms for months. Some of our prominent citizens have succumbed to this disorder, and the great mortality from pneumonia has attracted general attention. The features are those of a low fever, and a supporting treatment is required throughout. Many cases take milk punch or wine with marked benefit, while Dover's powder and quinia are given in moderate amount. During convalescence iron is generally needed in some of its preparations.

— The Philadelphia County Medical Society, through their committee on hygiene, have memorialized the legislature in regard to the control of inebriates and habitual drunkards. The draught of the bill submitted recommends their commitment to an inebriate asylum for a period of not less than four months, for treatment. It is hoped that eventually a state inebriate asylum will be provided for these unfortunates.

— Dr. Charles S. Turnbull reports[1] a case of traumatic perforation of the membrana tympani, with fracture of the handle of the malleus, which united under treatment, but with some displacement. In three months from the accident (thrust of a pen-holder into the meatus by a mischievous boy), the hearing was normal.

SHOT-GUN QUARANTINES.

Mr. Editor, — During the prevalence of the late epidemic of yellow fever frequent allusions were made in both the secular and medical press to the "shot-gun quarantines" maintained in many parts of the South. But few of the readers of the Journal, however, can have any definite idea of the conditions that led to the establishment, or of the consequences attending the enforcement of this means of self-protection, which was resorted to by so many local communities in the absence of any central authority either for instituting

[1] Philadelphia Medical and Surgical Reporter, February 22, 1879.

or restraining such measures. The state of alarm and panic that prevailed through the Southwest as the epidemic increased in virulence and invaded many points that had previously known it only by tradition, and the popular belief in the marked personal contagiousness of the disease, resulted in producing a state of feeling that in many places seemed to have annulled all the claims of humanity, or even of kindred and family ties.

In many cases the small towns quarantined against the larger ones where the disease prevailed, and refused to allow the trains to stop, or at least to permit the passengers to leave them, the depot platforms being patrolled by armed guards whose *mot d'ordre* was, Move on! As about the same order of things existed at all the stations on some lines of railroad, baggage and freight cars filled with refugees who could not escape to the North or West were often detached on side tracks, where they served as a shelter for the inmates for days at a time. If a case of suspicious sickness occurred among the unfortunate refugees they were ordered to move on under penalty of having the cars burned.

Many persons traveled long distances on foot or horseback through woods and swamps, making long *détours* around the quarantined towns to reach points of rest and safety. Refugees taken sick on the cars were often forcibly expelled, and left on exposed railway platforms to the chance mercies of any good Samaritan whose sense of humanity overcame his fears. Neighbors quarantined against each other where any exposure to contagion had occurred. If an absent member of a family returned from an infected point, non-intercourse was established by the whole neighborhood for a week or two.

In most of the towns the local police force was supplemented by details of the citizens, who mounted guard by day and night, and prevented the entrance of any persons to the town save under such regulations as they saw fit to establish.

A personal letter from an intelligent and responsible merchant of Memphis, detailing the experiences of himself and family with the "shot-gun quarantine," gives such a vivid picture of the sufferings inflicted on thousands of people endeavoring to escape from the prevailing scourge that I cannot more forcibly present the facts to your readers than by quoting freely from his letter.

With his wife and family of six young children, Mr. F. left Memphis on August 14th, expecting to reach Hot Springs, Ark., on the following morning; but on arrival at Gallaway, a town twelve miles east of Little Rock, at two in the morning, the train was stopped by the board of health, and ordered to remain in quarantine for forty-eight hours, to which ten days additional detention was added subsequently.

Here, at an out-of-the-way station, on an old, dilapidated platform, about four hundred people were exposed without food or shelter, most of them wishing to reach distant points in Missouri, Arkansas, and Texas. Among them were many women and children without escort, whose husbands and fathers were anxiously waiting their arrival. The panic-stricken people of the vicinity refused to permit the unfortunate refugees to approach their wells or yards, armed guards being placed around the fences. With a grim humor that old soldiers will appreciate, the writer says, —

"I have had some experience in my life with skirmishers on picket duty, but the quarantine guards far outstripped the skirmishers in point of duty, and sticking right close to it."

The refugees held an indignation meeting, and a piteous memorial setting forth the distressing circumstances of the quarantined people was prepared, and sent to the board of health at Little Rock, praying that the train and its passengers might be permitted to run past the city at lightning speed; but the authorities had determined on rigid quarantine, "and as far as that lot of passengers was concerned it was rigid enough, God knows." After a day spent in the broiling sun and a night in the swamp, and by the display of considerable strategy and the free use of money, Mr. F. secured a man who agreed to take his family through the swamps to Pine Bluffs, Ark., where they had relatives with whom they expected to find rest and shelter.

They started on their journey in one of the springless carts of the country, but after forty-eight hours' travel found that the all-pervading panic had invaded the swamps. They were not allowed to approach the houses to procure food or water for themselves or their mules. "Wherever we applied, Move on! Move on! was the cry, and move on we did." They subsisted mainly on green watermelons gathered "unobserved." In a solitary instance a settler near the road consented to sell them some corn-bread and bacon, he to place the food on the corner of his lot, our traveler to place his money there. "Both of us complied with the contract religiously; we left our money and our blessing."

In this way they traveled through the swamps, where the dews were so heavy they could be wrung from their clothes at night, and where the sun poured down with consuming fury by day, till the suburbs of Pine Bluffs were reached. Here they were halted by guards, and ordered back, refused permission to reach the houses of their relatives, although none of the party were sick or affected in any way. Expostulation or reasoning was in vain. "Quarantine had been established, and no one could enter Pine Bluffs by land or water." Again their journey was resumed, and after a weary tramp of twelve miles through the woods a lone house was found, where a Dr. Saunders hospitably received them, and where they proposed to remain for "forty days," or any other time that the strictest quarantine authorities could require. But the nearly famished travelers had hardly seated themselves at their first meal, when a delegation arrived from the people living in the surrounding country, who, on learning that the party had been expelled from Pine Bluffs by the quarantine, resolved to institute a quarantine for themselves. Their expulsion was demanded, and refused by their host, and the refugees determined not to be driven out. But they changed their minds when the delegation returned in augmented numbers, and, after quietly listening to the expostulations and entreaties of the refugees, they informed them that the possibility of the introduction of infection to the community could not be entertained, "and you must leave here forthwith, or we will burn the house over your heads, and then drive you out." "We looked at the group of twenty stalwart men, then at our wife and children, and concluded to go."

A relative whose wife had just been confined had visited the refugees, and

on returning to Pine Bluffs was quarantined, expelled from the town, and prevented from seeing his sick wife. Determined to subject no one to the ills they had become heir to, the family started again for the woods, having decided that "the more we see of some men the better we like dogs." Here they lived and slept for a time in the open air, and seemed to have instituted a quarantine for themselves against the world in general. Through the intercession of friends the family were finally removed to the race track of the town, and guards placed over them. One of these having dined with the family one day, and being discovered by the officer of the guard, the unfortunate fellow was quarantined with them.

At the expiration of ten days they were permitted to go to the house of a relative on parole, not to leave it for forty-eight hours. But their troubles were not yet ended. From their exposure in the woods and swamps most of the family had become infected with the troublesome red ticks of the South, some had been poisoned by the ivy and oak, and fever and ague had set in. They did not dare to send for a physician lest they should be considered sick with contagious disease, and again expelled, so the family physician at Memphis was telegraphed to, and prescriptions sent.

In conclusion, the writer says, "I have given you a plain recital of an experience with the "shot-gun quarantine" similar to that of thousands, but with many it was far more bitter. I can now review it calmly, and laugh at some of the incidents of travel and *travail*, but it was no laughing matter then. I must now frankly admit that a strict, rigid quarantine saved Arkansas from yellow fever; therefore I do not blame the people or harbor resentment for what I then thought acts of barbarism and selfishness. But they should have provided shelter and the necessaries of life for refugees, and I am informed that they did the best their means permitted later in the epidemic.

"Since my return I have conversed with many citizens of our own and adjoining counties, who are unanimous in their convictions that, were the fever again to appear, rather than allow refugees to enter their neighborhood tracks would be torn up, bridges destroyed, and a state of affairs inaugurated that sickens one to contemplate, as the fact is generally cited that the places that enforced rigid quarantine escaped, while those whose hospitable doors were opened unfortunately suffered severely."

Personal observation during the epidemic and extended official intercourse with the people of the districts liable to infection with yellow fever enable me to testify to the state of alarm and panic that prevailed, and to the experience here detailed as being fairly illustrative of the sufferings of thousands of flying refugees, and also to the fact that on the reappearance of a similar epidemic the same conditions would be repeated in a greatly exaggerated form. The experience of the past season has confirmed the popular belief in the communicability of the disease from person to person in suitable localities, and in the efficacy of keeping the contagion out of these places. Segregation of the population and isolation of the sick, combined with sanitation and disinfection, are believed by the experienced physicians of the South to be the most efficient means of preventing the spread of yellow fever, and on the reappearance of an epidemic the first-named measures would be extensively employed, but the sufferings that would attend the general institution and enforcement of

these measures, unless intelligently directed and proper means provided for the accommodation of the sick, and the well held under observation, will be too apparent to require farther comment. Proper legislation on the part of the general government and the States interested is imperatively required to prevent the recurrence of the wide-spread distress and suffering that prevailed during the past season. W.

SHORT COMMUNICATIONS.

ABSENCE OF SALIVA.

BY EDWARD P. BRADBURY, D. M. D.

In December last a young man twenty-four years of age came to the Dental Infirmary of the Massachusetts General Hospital for advice concerning artificial teeth. The first peculiarity presented was his statement that he had never erupted either temporary or permanent teeth. On examination, however, there were found what appeared to be the remains of the inferior six-year molars, but no other indications of teeth. But the more striking anomaly was seen in the total absence of saliva, neither the parotid, submaxillary, nor sublingual gland giving the least evidence of salivary secretion. The tongue, which was deeply serrated transversely, and the soft parts were dry and leathery, so that his speech was thick and apparently labored. In consequence of this condition he had never been able to take solid food of any kind, but had subsisted entirely upon soups and soft, moist food. He was, however, perfectly well, and his food was digested apparently as completely as though it had been mixed with the usual amount of saliva.

REPORTED MORTALITY FOR THE WEEK ENDING FEBRUARY 22, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	551	26.48	20.87	11.78	5.99	9.07	2.52
Philadelphia	—	353	—	—	—	4.22	1.98	—
Brooklyn	564,400	209	19.28	22.01	11.48	9.57	6.22	0.47
St. Louis	—	110	—	9.09	11.82	3.64	—	3.64
Chicago	—	122	—	14.75	10.66	6.56	—	—
Baltimore	365,000	131	18.71	15.27	11.45	6.87	2.29	—
Boston	356,500	139	20.34	15.11	7.19	7.91	4.32	1.44
Cincinnati	—	101	—	—	—	—	12.87	—
District of Columbia	160,000	71	23.13	12.66	16.90	2.82	4.23	1.41
Pittsburgh	—	45	—	17.78	13.33	11.11	2.22	2.22
Milwaukee	—	38	—	10.52	13.16	10.52	—	—
Providence	101,000	29	19.46	17.26	6.88	6.88	6.88	—
New Haven	—	22	—	13.64	13.64	9.10	4.55	—
Charleston	—	25	—	8.00	8.00	—	—	4.00
Lowell	53,300	13	12.71	—	7.69	—	—	—
Worcester	52,500	20	19.86	15.00	15.00	15.00	—	—
Cambridge	51,400	22	22.31	13.64	9.09	9.09	4.54	—
Fall River	48,500	15	16.13	—	6.67	—	—	—
Lawrence	38,200	24	32.76	12.50	25.00	8.33	—	—
Lynn	34,000	9	13.81	11.11	11.11	11.11	—	—
Springfield	31,500	13	21.52	15.38	7.69	7.69	7.69	—
New Bedford	27,000	—	—	—	—	—	—	—
Salem	26,400	7	13.83	14.29	—	14.29	—	—
Somerville	23,350	16	35.73	18.75	12.50	12.50	—	—
Chelsea	20,800	3	7.52	—	—	—	—	—
Taunton	20,200	6	15.49	—	16.67	—	—	—
Holyoke	18,200	4	11.46	—	—	—	—	—
Gloucester	17,100	8	24.39	12.50	—	12.50	—	—
Newton	17,100	2	6.10	50.00	50.50	—	50.00	—
Haverhill	15,300	7	23.86	28.57	42.87	28.57	—	—
Newburyport	13,500	4	15.45	25.00	25.00	—	—	—
Fitchburg	12,500	4	16.68	75.00	25.00	—	—	—

Two thousand one hundred and twenty-three deaths were reported: 347 from consumption, 194 from pneumonia, 102 from scarlet fever, 84 from diphtheria, 57 from bronchitis, 47 from croup, 30 from whooping-cough, 28 from typhoid fever, 24 from diarrhœa and dysentery, 10 from erysipelas, and 10 from cerebro-spinal meningitis. Allowing for Cincinnati, not fully reported, the decrease in the total mortality is slight; from acute and chronic pulmonary diseases, erysipelas, cerebro-spinal meningitis, and scarlet fever marked; from diphtheria considerable. The mortality is very much increased from diarrhœal diseases, and marked from typhoid fever, whooping-cough, and croup. No deaths from small-pox, measles, or *cholera nostras*. Philadelphia reported 55 deaths from acute lung diseases, not included in the above.

From *bronchitis*, 26 deaths were reported in New York, seven in Brooklyn, six in St. Louis and Baltimore, four in Chicago, three in Pittsburgh, two in District of Columbia, one in Milwaukee, New Haven, and Charleston. From *whooping-cough*, 13 in New York, eight in Brooklyn, four in Philadelphia, two in Chicago, one in Baltimore, District of Columbia, and Providence. From *typhoid fever*, 10 in Philadelphia, three in New York, Brooklyn, and Baltimore, two in St. Louis and Chicago, one in Boston, District of Columbia, Pittsburgh, Charleston, and Lawrence. From *cerebro-spinal meningitis*, three in Chicago and Fitchburg, two in New York, one in Baltimore and District of Columbia. From *erysipelas*, three in Chicago and Baltimore, one in Brooklyn, Boston, Somerville, and Newburyport. Baltimore reported two deaths and Charleston two deaths from *trismus nascentium*; Baltimore one from *tetanus*. In the District of Columbia there was one death from intermittent fever, and the death-rate among the colored people was two and one fourth times that of the whites. Pulmonary diseases were very prevalent in Nashville, Cleveland, San Francisco, and Mobile; scarlet fever in Buffalo, Richmond, and less so in Cleveland; diphtheria in Buffalo and San Francisco. Severe influenza diminishing in Providence. The returns from eighteen of the nineteen cities of Massachusetts, with a population of 850,300, showed an increased mortality from scarlet fever; about the same from diphtheria and cerebro-spinal meningitis, and diminished from the other "zymotic" diseases and pneumonia.

Sergeant Purssell's meteorological record for the week, in Boston, is as follows: —

Date.	Barometer.	Thermometer.		Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.			Rainfall. (Melted Snow.)	
	Daily Mean.	Daily Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Daily Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration in Hours.	Amount in Inches.
Feb. 16	30.430	28	37	12	62	50	70	60	SW	SW	SW	5	15	9	C	C	H	—	—
" 17	30.319	28	35	24	62	69	100	77	N	NE	E	6	17	37	O	O	S	—	.11
" 18	30.143	20	28	17	100	100	85	95	N	N	N	17	18	15	S	S	O	28.0	.21
" 19	30.360	18	22	9	90	85	86	87	N	N	N	12	10	7	S	S		—	.07
" 20	29.890	19	29	14	100	100	100	100	N	NE	N	14	37	24	S	S	S	—	1.25
" 21	29.780	15	21	10	65	43	53	53	NW	NW	NW	28	30	28	O	C	C	55.5	.02
" 22	29.827	18	26	7	57	11	79	49	W	W	S	16	9	5	F	F	O	—	—

	Barometer.	Thermometer.	Humidity, Saturation being 100.	Wind.	Rain.
Weekly Summary.	Mean 30.107	Mean 21.3	Mean 74.6	Total miles traveled, 2579.	Total amt. 1.66 in.
	Max. 30.469	Max. 37	Max. 100		
	Min. 29.716	Min. 9	Min. 11	Prevailing direction, N.	Duration, 83 hrs. 30 min.
	Range .753	Range 28	Range 89		

Barometer corrected for temperature, elevation, and instrumental error.

Explanation of weather symbols: O., cloudy; C., clear; F., fair; G., fog; H., hazy; R., rain; S., snow; L. S., light snow; T., threatening.

Station: Latitude 42° 21′; longitude 71° 4′; height of instrument above the sea, 77.5.

For the week ending February 1st in 159 German cities and towns, with a population estimated at 7,531,651, the death-rate was 25.8, a trifle greater than for the previous week, pulmonary diseases remaining about the same. Diphtheria had diminished, especially in Berlin, although still prevalent, and particularly so in Königsberg, Dantzic, Munich, Augsburg, Dresden, Hamburg, and Strasbourg. Measles and scarlet fever remain about the same, although less severe where they have been raging. The other "zymotic" diseases, especially typhus, have increased. A local epidemic of typhus fever in the village Wielitzken has been incorrectly reported as the plague. Diarrhœal diseases are becoming more prevalent, especially in Königsberg, Berlin, and Munich. No deaths from small-pox. The death-rates were in Dantzic 31.0; Kiel 17.3; Breslau 27.7; Munich 33.0; Stuttgart 20.3; Augsburg, 38.7; Dresden 23.4; Cassel 20.2; Erfurt 11.7; Berlin 24.4; Leipsic 16.4; Hamburg 27.0; Hanover 17.1; Bremen 26.0; Cologne 29.3; Frankfort-on-the-Main 23.0; Wiesbaden 14.4, — highest in Augsburg, lowest in Erfurt.

Small-pox showed an increase in London and decrease in Vienna, Budapesth, Paris, Barcelona, Geneva, Warsaw, Dublin, and St. Petersburg; a few deaths were reported in Prague, Odessa, and Lisbon. Scarlet fever remained about the same in Liverpool and Birmingham. Typhus fever is somewhat less rife in St. Petersburg. Diphtheria was still very fatal in Vienna, Paris, St. Petersburg, and Warsaw; increasing in London.

Typhus fever is widely prevalent in Russia and European Turkey, but no authentic cases of the plague have occurred outside of the sanitary cordon on the two sides of the Volga, inclosing an area about one hundred and twenty miles long and forty miles broad. Even there only a very few recent cases or deaths have been reported; the river is still frozen and the weather cold; very little communication takes place naturally at this season of the year with other towns, as there are no railroads in the district. The distinguished epidemiologist, Hirsch, is one of the German commission to investigate the epidemic. He states that it is the Indian form of the plague, which was fatal in the fourteenth century; it was imported, doubtless, from Persia, and is dependent for its origin, at least, on indescribable filth and misery.

At a meeting of the second class of the Harvard University Medical School, February 17, 1879, the following resolutions were unanimously adopted: —

Resolved, That in the sudden death of our late classmate, Leopold Lobsitz, we have sustained the loss of an ardent worker, a thorough student, and one of rare ability and strong parts, — a genial and kind-hearted companion.

Resolved, That we extend our deepest sympathy to his family in this hour of their affliction.

Resolved, That copies of these resolutions be transmitted to Mr. Lobsitz's family, the daily papers of his native city, the Boston Medical and Surgical Journal, and Harvard College papers, for publication.

Boston, *February* 18, 1879.

Books and Pamphlets Received. — A Manual for the Practice of Surgery. By Thomas Bryant, F. R. C. S. With Six Hundred and Seventy-Two Illustrations. Second American from the third revised and enlarged English edition. Philadelphia: Henry C. Lea. 1879. Pp. 945.

Electricity in its Relations to Medicine and Surgery. By A. D. Rockwell, M. D. (Reprint.)

The Yellow Fever Epidemic in the Fourth District of New Orleans. By Joseph Holt, M. D.